

Import a list of fortunes (or names, words or data)



adapted from **Scratch Tutorial – Lists, mod, if-else**

by Michael Badger

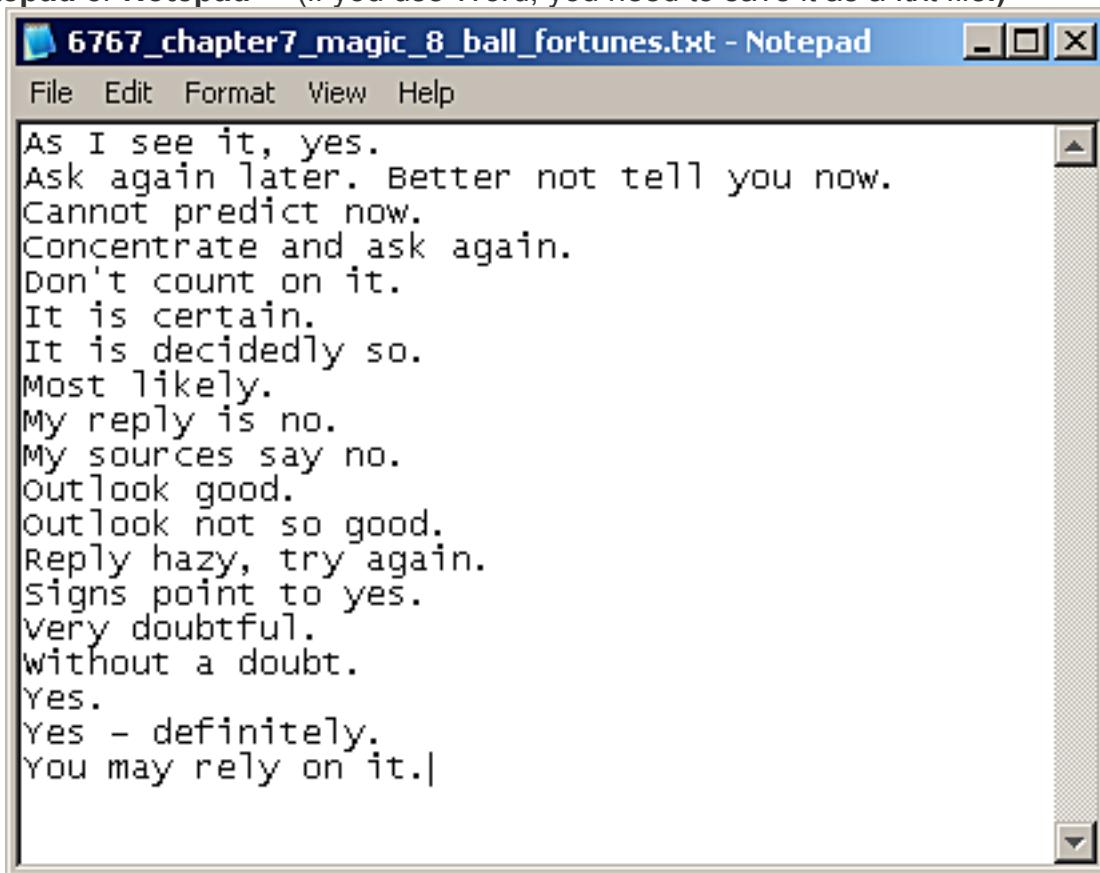
<http://www.scratchguide.com/scratch-tutorial-lists-mod-if-else/>

Q: Why would you want to import a list instead of typing it in?

Step 1: Create your list file

Entering one item at a time via the Scratch interface is functional, but the small size of the list box can be difficult to use when we need to add a large number of items. Fortunately, we can create a text file outside of Scratch and then **import** it into our list.

Before you continue with the exercise, build your own text file with the fortunes you want to use in response to the seeker's questions. Enter one fortune per line in a text editor, such as **Notepad** or **Notepad++** (if you use Word, you need to save it as a .txt file.)



You can use any fortunes you want, like this list of common Magic 8 ball responses that is found on Wikipedia at http://en.wikipedia.org/wiki/Magic_8_ball. My list will contain 19 items to start. **Save the file in your Scratch folder or somewhere convenient, make sure it's a .txt file.**

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Step 2: Import your list file

These instructions allow you to import a list of data, it uses a new list name **answers** that could be the list of answers to your fortune telling program.



1. To import the list, right-click on the answers list and choose import... Note: This will erase any items you previously added to the answers list.
2. In the Import List dialog box, browse to the fortunes file you saved on your computer prior to starting this exercise and import it
3. Think of a new fortune that is not yet in your answers list. We are going to add it to the list. I'll use "No comment" as my new fortune.
4. Now, let's add the new fortune to our list. From the Variables palette, find the add block. Replace the default value thing with your new fortune. Make sure the answers list is selected.



5. Double-click on the add block to add the new item to the end of the answers list.

What just happened?

I don't know about you, but I had a much easier time typing in a text editor than I did typing in the list monitor. Actually, if you took my lead, you copied the Magic 8 ball responses from Wikipedia and pasted them into a text file. That way, all you had to do was to clean up some formatting. We did add a new fortune to the list via the **add** block. The **add** block always places the new value at the end of the list. Now, my list contains 20 items. As an alternative, we could have updated the original fortunes text file and then re-imported the list.

Reasons to import

It's true that importing a list makes list creation easy. However, we can use the Import List functionality in other creative ways. For example, we could create a game that instructs the player to create a unique list that he or she can import into Scratch. That way, each player can customize the game.

If we create a math game, we could ask the player for a varied set of numbers to make the problems different. We could even have two parallel lists, one with a question and the other with an answer – or jokes and their punch line. The possibilities are endless. How would you use a list??? That will be your next creative project challenge.

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One Step Further: Export a list

Sometimes, we may want to export a list from Scratch to a file. For example, as people play a game, we may want to collect all the scores into a separate list that we can later export to a text file on our computer.

As we create our projects, the contents of a list may change from the original list we imported. In that case, we may want to export the new list.

To export a list, right-click on the **list monitor** and click **export**. The file automatically usually saves to the root installation directory for Scratch (Windows, that is *C:\Program Files\Scratch*), but that may be blocked on our school machines for students – so we will have to experiment to see where the files are saved for you. Give it a try.

Q: How can we use this export? We will explore this more later.

What's next?

Loops, List, Input & String Project: (20 Project points)

You will be creating a List Project that will combine all the Scratch principles we have been learning:

- Loops using Variables
- Assembling Strings of text
- Collecting User input
- Using Lists to store valuable

You will be designing these on your own, they are YOUR project. **So let me know what ideas you have so I can set up a good rubric for this one. More features and creativity you put into it, the more points you will get...**

Initial Ideas:

- MadLib-like story telling. Not very hard, but good demonstration of lists, how can you make it more creative?
- Student selector program – randomly picks a student to answer questions. Can you make it choose every student once before they are called on again? How would you use export for this??
- What else???